

Claims

We claim:

1. A method of wireless communication, comprising:
5 monitoring a plurality of frames on a channel; and
detecting a sector switching indicator (SSI) in at least one frame and over a sliding window containing at least two frames.
2. The method of claim 1, further comprising conducting a switch detection
10 decision based on the detecting step.
3. The method of claim 2, wherein the switch detection decision in the conducting step is a final switch detection decision.
- 15 4. The method of claim 2, wherein the switch detection decision in the conducting step is a preliminary switch detection decision, and wherein the method further comprises:
forwarding the preliminary switch detection decision to a central entity; and
conducting a final switch detection decision based on a plurality of preliminary switch
20 detection decisions.
5. A method of detecting a sector switching indication (SSI), comprising:
identifying a serving sector;
identifying at least two active set sectors;
25 monitoring a plurality of frames on at least one channel associated with said at least two active set sectors; and
detecting the SSI in at least one frame and in a sliding window containing at least two frames.
- 30 6. The method of claim 5, further comprising conducting a switch detection decision based on the detecting step.

7. The method of claim 6, wherein the switch detection decision in the conducting step is a final switch detection decision.

8. The method of claim 6, wherein the switch detection decision in the conducting step is a preliminary switch detection decision, and wherein the method further comprises conducting a final switch detection decision based on a plurality of preliminary switch detection decisions corresponding to said at least one active set sector.

9. The method of claim 6, further comprising:
comparing a pilot signal-to-noise ratio for each of said active set sectors with a signal-to-noise ratio threshold; and
indicating an acceptable signal link if the pilot signal-to-noise ratio is greater than the signal-to-noise ratio threshold to reflect a confidence level in the switch detection decision associated with each of said active set sectors.

10. The method of claim 5, wherein the step of identifying the serving sector comprises comparing energy levels of transmissions received a plurality of sectors, wherein the serving sector has the highest energy level out of said plurality of sectors.

11. The method of claim 5, further comprising updating a frame-based detection history each time the detection step detects the SSI in said at least one frame.

12. The method of claim 5, wherein the detecting step detects the SSI in the sliding window by

obtaining a serving metric corresponding to a normal channel quality report for the serving sector; and

obtaining a target metric corresponding to a highest probability that the SSI has been sent to any one of said active set sectors.

13. The method of claim 12, further comprising:

accumulating a plurality of target metrics over the sliding window;

selecting a largest target metric out of the plurality of target metrics; and

indicating a likelihood that the SSI has been sent if the largest target metric is above

5 the serving metric plus a threshold.

14. The method of claim 5, further comprising estimating a sector switch completion time.

10 15. The method of claim 5, further comprising:

directing the serving sector to release the mobile device at a selected time; and

notifying the active set sectors of the selected time.

16. A method of detecting a sector switching indication (SSI), comprising:

15 conducting a plurality of switch detection decisions in a baseband processor stage, wherein each preliminary switch detection decision corresponds to one of a plurality of active set sectors;

forwarding the plurality of preliminary switch detection decisions to a base station stage;

20 conducting a second switch detection decision based on the plurality of preliminary switch detection decisions in the base station stage; and

determining whether the SSI has been sent based on the second switch detection decision in the base station stage.

25 17. The method of claim 16, wherein the second switch detection decision is a final switch detection decision.

18. The method of claim 16, wherein the step of conducting the second switch detection decision comprises conducting a plurality of second switch detection decisions, and
30 wherein the determining step comprises:

conducting a third switch detection decision based on the plurality of second switch detection decisions; and

determining whether the SSI has been sent from the third switch detection decision.

19. The method of claim 16, wherein each of said plurality of switch detection decisions in said conducting step is conducted by:

- 5 monitoring a plurality of frames on a channel; and
 detecting the SSI in one of frames and in a sliding window containing at least two frames.

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